IN THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of claims in the application.

LISTING OF THE CLAIMS

1. (Currently amended) A method of producing coronary vasodilation without significant peripheral vasodilation comprising administering by intravenous (iv) bolus at least 10 μ g of the A_{2A} receptor agonist CVT-3146, named (1-{9-[(4S,2R,3R,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-6-aminopurin-2-yl}pyrazol-4-yl)-N-methylcarboxamide, which has the formula:

to a human in need thereof.

- 2. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount that does not exceed about 1000 μ g.
- 3. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μg .

4. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in a single dose.

5. (Canceled)

- 6. (Previously presented) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 0.05 to about 60 μ g/kg.
- 7. (Previously presented) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 0.1 to about 30 μ g/kg.
- 8. (Previously presented) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than about 20 μ g/kg to a supine patient.
- 9. (Previously presented) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than about 10 μ g/kg to a standing patient.
- 10. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μ g wherein the wherein the A_{2A} receptor agonist is administered in about 20 seconds.
- 11. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μ g wherein the A_{2A} receptor agonist is administered in less than about 10 seconds.
- 12. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount greater than about 100 μ g.
- 13. (Previously presented) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than 600 μ g.

- 14. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than 500 μg .
- 15. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 100 μg to about 500 μg .

16. (Canceled)

17. (Previously presented) A method of myocardial perfusion imaging of a human, comprising administering a radionuclide and the A_{2A} receptor agonist CVT-3146, named (1-{9-[(4S,2R,3R,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-6-aminopurin-2-yl}pyrazol-4-yl)-N-methylcarboxamide, which has the formula:

to the human, wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow that is achieved within about 1 minute from the administration of the A_{2A} receptor agonist, and wherein the myocardium is examined for areas of insufficient blood flow following administration of the radionuclide and the A_{2A} receptor agonist.

18. (Original) The method of claim 17 wherein the myocardium examination begins within about 1 minute from the time the A_{2A} receptor agonist is administered.

19-20. (Canceled)

- 21. (Original) The method of claim 17 wherein the radionuclide and the A_{2A} receptor agonist are administered separately.
- 22. (Original) The method of claim 17 wherein the radionuclide and the A_{2A} receptor agonist are administered simultaneously.
- 23. (Original) The method of claim 17 wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow for less than about 5 minutes.
- 24. (Original) The method of claim 17 wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow for less than about 3 minutes.
- 25. (Previously presented) The method of claim 17 wherein the A_{2A} receptor agonist is CVT-3146 which is administered in an amount ranging from about 10 to about 600 μ g in a single intravenous (iv) bolus.
- 26. (Previously presented) The method of claim 25 wherein CVT-3146 is administered in an amount ranging from about 100 to about 500 μg in a single intravenous (iv) bolus.
- 27. (Original) The method of claim 17 wherein the a A_{2A} receptor agonist is CVT-3146 which is administered in a single dose in an amount ranging from 10 to about 600 μ g that is independent of the weight of the human being dosed.
- 28. (Original) The method of claim 27 wherein the dose is administered in about 30 seconds or less.
- 29. (Original) The method of claim 27 wherein the dose is administered in about 20 seconds or less.
- 30. (Original) The method of claim 17 wherein the A_{2A} receptor agonist is administered in a single dose.